

5    TITLE:                    CAP FOR SEALING A BATHTUB OVERFLOW PORT  
                                 FOR TESTING PURPOSES

CROSS REFERENCE TO RELATED APPLICATION:

                 This application is a continuation of U.S. Patent  
10    Application Serial No. 10/247,247 filed September 19,  
                 2002.

BACKGROUND OF THE INVENTION

                 In new building construction, the plumbers prefer  
15    not to put the finished closure valves in the bottom of  
                 tubs, or the finished decorative plate over the overflow  
                 outlet at the end of the tub until the project is  
                 finished because these elements will be often damaged as  
                 the construction project is brought to a close.  
20    Further, the piping for both of the outlets need to be  
                 checked for leaks before the inspection process is  
                 completed. The test involves running water down the  
                 vent for the drain until it reaches a level above the  
                 tub and the tester then determines whether any of the  
25    piping leaks. Thus, when the testing operation arrives,  
                 a plug is put in the bottom drain of the tub and some  
                 sort of a seal plate is placed at the end of the tub on  
                 the overflow outlet.

                 Existing overflow plates have a center opening  
30    therein. There are either two or four small screw holes  
                 in the plate adjacent the center opening wherein two of  
                 the holes are used to hold the plate to the plumbing  
                 fixture. In some cases there is a fitting so that the  
                 screw hole is located directly in the middle of the  
35    access hole. In that case, that hole is in the way when  
                 the testing procedure is implemented. In any event, the  
                 testing procedure usually involves stuffing a balloon

5 through the large center opening into the pipe in the  
wall and the pipe is sealed when the balloon is  
inflated. Further, existing seal plates normally have  
to be removed when the decorative plate is put on. The  
decorative plate is typically held by two screws which  
10 either use the screw openings of the plate or two  
additional openings in the case that four holes are  
provided.

Some efforts have been made to seal the overflow  
ports of bathtubs with a diaphragm, and then cut the  
15 diaphragm when the test is completed. (See U.S. Patent  
No. 5,890,241). However, the system for including the  
diaphragm sometimes involves screws and tools, and is  
not always convenient to install or to remove after  
testing.

20 It is therefore a principal object of this  
invention to provide a seal for a bathtub overflow port  
that is very easy to install for testing purposes, and  
is easily made operable for overflow purposes when the  
testing is finished.

25 A further object of the invention is to provide a  
seal for a bathtub overflow port that is very economical  
to manufacture.

These and other objects will be apparent to those  
skilled in the art.

30

#### SUMMARY OF THE INVENTION

A temporary closure means for a bathtub overflow  
port, comprising placing on the outer end of a drain  
pipe extending through the overflow port a cap threaded  
35 on the outer end, with a sealing element on its outer  
surface.

5 BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a partial perspective view of a conventional bathtub environment utilizing the invention of this application;

Fig. 1A is an enlarged scale sectional view taken  
10 on line 1A-1A of Fig. 1;

Fig. 2 is an exploded perspective view of the invention; and

Fig. 3 is a sectional view of the assembled components of Fig. 2.

15

DESCRIPTION OF THE PREFERRED EMBODIMENT OF THE INVENTION

With reference to Figs. 1 and 1A, a conventional bathroom structure 10 has a floor 12, and a hollow wall 14 with a wall opening 16 therein. A conventional  
20 bathtub ("tub") 18 has a base 20 which rests upon floor 12. Sidewalls 22 extend upwardly from base 20 as does an end wall 24. A bottom 26 dwells in spaced relation to the floor 12.

A conventional drain port 28 is located in bottom  
25 26. A conventional overflow port 30 is located in the end wall 24 (Fig. 2). A vertical drain pipe 32 extends downwardly from drain port 28, and overflow drain pipe 34 extends downwardly from overflow port 30. A horizontal pipe 36 connects pipes 32 and 34. A drain  
30 pipe 38 extends downwardly from the junction between pipes 34 and 36.

A conventional vertical vent pipe 40 is located within the hollow wall 14. Conventional water pipes 44 extend through hollow wall 40 and are connected to valve  
35 46 which is interconnected to conventional control member 48 and faucet 50.

5           With reference to Figs. 2 and 3, a cap 52 has an  
outer face 54 which has a cylindrical body 60 which has  
interior threads 62 and which are adapted to mate with  
the threads 31 of port 30 (Fig. 2). The cap 52 also has  
an annular flange 64 that extends radially outwardly  
10 from the open end of the cylindrical body 60. A thin  
sealing membrane 66 is affixed to the face 54 (Fig. 2)  
of cap 52 so as to seal the aperture in the cap when it  
is screwed into the threads 31 so that the cap can be  
effectively sealed against the port 30.

15           In operation, the cap 52 can either be removed from  
the port 30, or the thin sealing membrane 66 can be cut  
away so as to permit the attachment of the conventional  
overflow mechanisms.

          It is therefore seen that the embodiments of this  
20 invention achieve at least all of the stated objectives.